

Claims

1. A composition comprising *Lactobacillus* strain NCIMB 41114 or an equivalent *Lactobacillus* strain and at least one non-digestible oligosaccharide.

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2. A composition according to claim 1 wherein said oligosaccharide is chosen from galacto-oligosaccharide (GOS), fructo-oligosaccharide (FOS), xylo-oligosaccharide (XOS), soybean-oligosaccharide (SOS), isomalto-oligosaccharide (IMO), gentio-oligosaccharide, fructan, inulin, lactulose, gluco-oligosaccharide and lactosucrose.

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3. A composition according to claim 1 or claim 2 which in a daily dosage provides from 10^6 to 10^{12} cfu *Lactobacillus* strain NCIMB 41114.

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4. A composition according to any one of claims 1 to 3 wherein said composition comprises FOS and/or GOS.

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5. A composition according to any one of claims 1 to 4 wherein said composition further comprises a soluble fiber selected from the group consisting of guar gum and partially hydrolyzed guar gum.

6. A composition according to any one of claims 1 to 5 wherein said composition further comprises at least one polyunsaturated fatty acid chosen from at least one of alpha-linolenic acid, eicosapentaenoic acid, docosapentaenoic acid or docosahexaenoic acid.

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7. A composition according to claim 6 wherein said polyunsaturated fatty acid comprises eicosapentaenoic acid and/or docosahexaenoic acid.

8. A composition according to any preceding claim for use as a medicament.

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9. Use of a composition according to any one of claims 1 to 8 in the manufacture of a medicament or nutritional composition for any of maintaining and/or promoting a healthy gut microflora, reducing the toxic effects of the digestive process, stimulating the digestive system and improving bowel control.

10. Use of a composition according to any one of claims 1 to 8 in the manufacture of a medicament or nutritional formulation for the prevention or treatment of any form of Functional Bowel Disorder, and in particular functional constipation, functional diarrhea and Irritable Bowel Syndrome (IBS), such as Constipation predominant IBS, Alternating IBS and
5 Diarrhea predominant IBS.

11. Use of a composition according to any one of claims 1 to 8 in the manufacture of a medicament or nutritional formulation for stimulating the immune system and promoting resistance to bacterial or yeast infections, in particular for the prevention or treatment of
10 Candidiasis or diseases induced by sulfate-reducing bacteria.

12. Use of a composition according to any one of claims 1 to 8 in the manufacture of a medicament or nutritional composition for the prevention or treatment of Inflammatory Bowel Disease, in particular Ulcerative Colitis, Crohn's disease, and/or to prevent colon cancer.
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13. A method of promoting a healthy gut microflora, reducing the toxic effects of the digestive process, stimulating the digestive system and improving bowel control in a mammal in need of such a treatment comprising administering to said mammal an effective amount of a composition according to any one of claims 1 to 8.
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14. A method of treating and/or preventing any form of Functional Bowel Disorder, and in particular functional constipation, functional diarrhea and Irritable Bowel Syndrome (IBS), such as Constipation predominant IBS, Alternating IBS and Diarrhea predominant IBS in a mammal in need of such a treatment comprising administering to said mammal an effective
25 amount of a composition according to any one of claims 1 to 8.

15. A method of stimulating the immune system and promoting resistance to bacterial or yeast infections, in particular of treating and/or preventing Candidiasis or diseases induced by sulfate reducing bacteria in a mammal in need of such a treatment comprising
30 administering to said mammal an effective amount of a composition according to any one of claims 1 to 8.

16. A method of treating and/or preventing Inflammatory Bowel Disease, in particular Ulcerative Colitis, Crohn's disease, and/or of preventing colon cancer in a mammal in need of such a treatment comprising administering to said mammal an effective amount of a composition according to any one of claims 1 to 8.

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17. A commercial package comprising as active agents Lactobacillus strain NCIMB 41114 or an equivalent Lactobacillus strain and at least one non-digestible oligosaccharide together with instructions for simultaneous, separate or sequential use thereof in maintaining and/or restoring a beneficial gut microflora, for the prevention or treatment of any form of Functional Bowel Disorder, and in particular Irritable Bowel Syndrome (IBS), for eliminating sulfate reducing bacteria, for the treatment or prevention of Inflammatory Bowel Disease (IBD), in particular Ulcerative Colitis, Crohn's disease, and/or colon cancer, and/or for repressing or prolonging the remission periods on Ulcerative patients.

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18. A package according to claim 17 wherein said oligosaccharide is chosen from galacto-oligosaccharide (GOS), fructo-oligosaccharide (FOS), xylo-oligosaccharide (XOS), soybean-oligosaccharide (SOS), isomalto-oligosaccharide (IMO), gentio-oligosaccharide, fructan, inulin, lactulose, gluco-oligosaccharide and lactosucrose.

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